EPA			Unite	d States Environm Washin	ental Protection <i>i</i> gton, DC 20460	Agency		Work Assignment Number 4-122			
EFA				Work Assignment				Other Amendment Number:			
Contra	act Number		Co	Contract Period 11/03/2010 To 09/10/2016				Title of Work Assignment/SF Site Name			
EP-V	V-11- 00	3	Ba	se	Option Period Nu	mber 4		Symp on Uncertainty & Health			
Contra	octor		•		Specify	y Section and pa	ragraph of Co	ntract SOW			
ABT	ASSOCI	ATES INC	•		Sect	t 3 para	5 ¿Log:	istical Supp	, page 1-1	1 of 11	
Purpo	se:	X Work Assig	nment		Work Assignment C	Close-Out		Period of Performance			
		Work Assig	nment Amendmen		Incremental Fundin	ng					
		Work Plan	Approval	_				From 03/11/2016 To 09/10/2016			
Comm	ents:	netterment seems	and in the State of the State o								
The purpose of this action is to initiate Work Assignment 4-122. The contractor shall submit a work plan and estimated budget in accordance with the contract. See the attached WA SOW.											
	Super	fund		Acco	ounting and Appro	priations Data	a		Х	Non-Superfund	
000000		The second secon	Note	: To report additional ac	counting and appropri	iations date use	EPA Form 190	0-69A.		CONTRACTOR STATES AND CONTRACTOR	
SFO (Max 2)											
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (D	ollars) (Cents)	Site/Project (Max 8)	Cost Org/Code	
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Work A	Assignment M	lanager Name	Chris Doc	kins			Bra	Branch/Mail Code:			
							Pho	Phone Number: 202-566-2286			
		(Signa	ture)		(Date)	FAX	FAX Number:			
Projec	t Officer Nam	e Cheryl	R. Brown				Bra	Branch/Mail Code:			
							Pho	Phone Number: 202-566-0940			
		(Signa	ture)		FAX Number:						
Other	Agency Offici	ial Name		Bra	Branch/Mail Code:						
								Phone Number:			
(Signature)				(Date)				FAX Number:			
Contracting Official Name Stefan Martiyan								Branch/Mail Code:			
								Phone Number: 202-564-1987			
(Signature) (Date)								FAX Number:			

WORK ASSIGNMENT

Title: Symposium on Uncertainty and Environmental Health Benefits

Contractor: Abt Associates Contract No.: EP-W-11-003

Work Assignment Number: 4-122

Estimated Period of Performance:

Phase 1: Approval to September 10, 2016

Estimated Level of Effort: 305 Hours

Key EPA Personnel:

Work Assignment COR (WA COR): Chris Dockins

NCEE, 1809T

Phone: 202-566-2286 Fax: 202-566-2336

Contract Level COR: Cheryl Brown

CMG/OP (1805T) Phone: 202-566-0940

Background:

EPA regulates a number of environmental contaminants that can damage neurological, cardiovascular, immunological, developmental, and other major organ systems. Quantifying the risks associated with these contaminants, and valuing changes in risks is often challenging in many ways. One area of importance is in the degree to which causal determinations have been made about the relationship between the contaminant and specific health outcomes. In some cases formal causality or weight-of-evidence determinations are made by authoritative bodies in documents such as EPA's Integrated Science Assessments (for criteria air pollutants) or Integrated Risk Information System (for carcinogens). These determinations may have somewhat different designations but include categories such as causal, likely causal, suggestive, or inadequate information. In other cases there is no formal causality determination although there may be evidence for concluding that there is a statistically significant relationship between health effects and exposures to the contaminant.

EPA benefits analysis will often include those effects for which causal or likely causal conclusions exist, and may not include effects with lesser degrees of causality. When there is no causality determination at all EPA practice may vary. Economic theory suggests that even less-certain changes in potential health effects should receive some weight in benefits analysis, and that individuals may have preferences about the degree of

uncertainty in health risks. However, there is no clearly demonstrated application of this theory in the economics literature, and some challenges remain to be explored, evaluated, and addressed.

EPA staff at the National Center for Environmental Economics are drafting a white paper and presentation identifying possible approaches to meeting these challenges. While these approaches are based on sound economics, it is likely that any approach or set of approaches will be more effective if it is informed not just be economic theory, but by practice and considerations in other disciplines facing similar challenges. (For example, in medical decision-making treatment choices must sometimes be made with uncertainty about their relative efficacy.)

Therefore, this work assignment seeks technical assistance to organize a small symposium for expert discussion on benefit-cost analysis in the presence of uncertainty in causation of adverse health outcomes and possible approaches described by EPA and others. This is a co-hosted symposium with space provided by the Institute for Policy Integrity at the New York University School of Law in New York City.

Under a prior work assignment, 4-82, the contractor performed work on developing evidence determinations through systematic review. While the symposium under this work assignment might include discussion of systematic review, none of the activities under this work assignment will be duplicative of that from work assignment 4-82.

Purpose and Objectives: The purpose of this SOW is to obtain support to conduct a small 1.5-day symposium among invited experts on the topic of causality uncertainty and benefits analysis for environmental health risks. These experts will provide the Agency with information and issues to consider as EPA seeks to address the challenges associated with causality uncertainty in economic analysis. This work assignment includes tasks related to identifying and making arrangements for expert participants, assistance disseminating pre-meeting materials, and summary of the symposium discussions. The location of the symposium will be in New York, New York. Specific invitees, of which there should be no more than 25, may be suggested by the WA COR and should be based on the qualifications of invitees provided to the contractor by the WA COR in technical direction, but the contractor will determine who is invited and not EPA."

Tasks and Deliverables:

The WA COR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the WA COR's comments. The contractor shall provide the WA COR with electronic copies of all deliverables and cited source/reference material.

The contractor shall only accept technical direction from the WA COR. Technical direction for this work assignment consists of specific information for the symposium, including necessary expertise from participants and location, verbal and written feedback

on deliverables, requests for follow-up information or revisions of deliverables, and responses to questions from the contractor regarding specifics of the symposium. Issuance of WA COR verbal technical direction will be provided in email and/or memos within 5 days.

The WA COR will direct the contractor to engage in technical communication with other EPA staff if needed for the performance of this work assignment.

Contractor personnel shall at all times identify themselves as contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

QUALITY ASSURANCE (QA) REQUIREMENTS

No environmental data generation is anticipated under this work assignment.

TASKS

Task 1 - Prepare Workplan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The workplan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task, and a staffing plan. The WA COR and the CL COR and the CO will review the workplan. However, only the CO can approve/disapprove, suggest revisions, or change the workplan. Official revisions will be given to the contractor by the Contracting Officer. The contractor shall prepare a revised workplan incorporating the Contracting Officer's comments, if required.

Deliverables under Task 1

- 1a. Workplan within 15 days of WA receipt
- 1b. Revised Workplan within 3 days of receipt of CO comments

Task 2 – Arrange Symposium on Uncertainty and Environmental Health Benefits [Section 3 ("Common Tasks"), para 5 "Logistical Support", page 1-11 of 11]

The contractor shall plan a small, 1.5-day symposium of no more than 25 US experts on the topic of uncertainty and environmental health benefits to be held at the Center for Policy Integrity of the New York University School of Law. The Center for Policy Integrity is co-sponsoring this event and offering space, therefore the contractor does not need to secure space for the event.

This symposium will be by invitation only and shall be designed to provide a forum for findings prepared by EPA to be communicated to participants, for presentation of related approaches by other experts, and to support an exchange of technical information and technical issues related to EPA's findings and other presentations.

The WA COR will provide technical direction on required qualifications for participants in the symposium. The contractor shall identify and select a set of participants, inform them of the nature of the symposium and their role, request their participation, and identify dates that best meet the scheduling requirements of EPA and participants.

All participants will be provided with EPA's presentation of approaches to address uncertainty in causality and a set of related issues for broader discussion. All participants are expected to participate in discussion surrounding these questions.

The contractor shall arrange for up to five participants ("presenters") to prepare short presentations of no more than 30 minutes each on specific topics based on technical direction from the WA COR. These presentations are not expected to require original research from presenters, but instead to describe approaches for the same or similar challenges in their own area of expertise.

Other participants ("non-presenters") are not responsible for making any formal presentations. However, they will be expected to review information (e.g., papers or presentations) in advance of the symposium, and to come prepared to provide advice and comments on symposium presentations made by EPA staff and the presenters. The contractor's non-presenters will be expected to comment and engage in discussions with other attendees during the symposium, drawing upon their identified areas of expertise, research, and experience that led to their selection by the contractor to be among invited participants.

The contractor shall communicate with participants regarding logistics as needed. The contractor shall make any necessary subcontracting or consulting agreements.

The contractor shall draft an agenda for the symposium based on technical direction from the WA COR, and a revised agenda based on WA COR comments.

The contractor shall coordinate and communicate, as needed, with the Center for Policy Integrity at the New York University School of Law regarding space being provided by this co-sponsor

Deliverables under Task 2

- 2a Select participants based on qualification criteria provided by WA COR technical direction.
- 2b Contact participants and arrange for their attendance
- 2c Arrange for short presentations to be prepared by up to five attendees based on WA COR technical direction
- 2d Draft agenda based on WA COR technical direction

Task 3: Conduct Symposium on Uncertainty and Environmental Health Benefits and Provide Symposium Summary Report

[Section 3 ("Common Tasks"), para 5 "Logistical Support", page 1-11 of 11]

The contractor shall be present on-site at the symposium and take notes sufficient to write a symposium summary. The contractor does not need to arrange space for the symposium or any A/V equipment. These are being provided by the Institute for Policy Integrity as a Co-sponsor of the event. At the symposium, EPA and selected presenters in Task 2 shall make their prepared presentations, and time shall be allocated for questions and discussion of the issues described. A symposium chair shall ensure that the schedule is adhered to, and stimulate the discussion if needed.

Upon completion of the symposium the contractor shall draft a report summarizing major conclusions, issues, and questions for review by the WA COR. Upon receiving comments from the WA COR the contractor shall draft a final summary report.

- 3a On-site support at symposium
- 3b Draft summary report of the symposium's major conclusions, issues, and questions.
- 3c Final summary report based on comments from WA COR.

SUMMARY OF DELIVERABLES AND DATES:

Task	Deliverable	Delivery Schedule
1a	Work plan	15 calendar days after effective date of work assignment
1b	Revised work plan	3 days after receipt of comments from the CO
2a	Select participants based on qualification criteria provided by WA COR technical direction.	2 weeks after receiving technical direction on qualifications from WA COR
2b	Contact participants and arrange for their attendance	2 weeks after completing (2a)
2c	Arrange for short presentations to be prepared by up to five attendees based on WA COR technical direction	2 weeks after receiving technical direction from WA COR
2d	Draft Agenda	2 weeks after receiving technical direction from WA COR

2e	Revised Agenda	1 weeks after receiving comments from WA COR on draft
3a	On-site support for symposium	No later than August 31, 2016
3b	Draft summary report	1 week after completion of symposium.
3c	Final summary report	1 week after receipt of comments from WA COR